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10/694,617	10/27/2003	Steven M. Powell	2802-159-030	5140

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EXAMINER
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BRINSON, PATRICK F

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/694,617  
Filing Date: October 27, 2003  
Appellant(s): POWELL ET AL.

**MAILED**  
**MAY 17 2007**  
**Group 3700**

\_\_\_\_\_  
John A. Molnar, Jr.  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 5 March 2007 appealing from the Office action mailed 16 June 2006.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

No evidence is relied upon by the examiner in the rejection of the claims under appeal.

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

The patent to **Douchet** discloses a multi-layered hose comprising a first layer (2) formed of a plurality of polyamide layers, namely an inner layer of polyamide 12, an intermediate layer of polyamide elastomer, and an outer layer of polyamide 6. A second layer bonded directly onto the first layer is a layer (3) formed of a hot melt polyurethane. **Douchet** does not disclose the durometer between 63 Shore D and 83 Shore D, however, col. 3, lines 13 and 14 disclose that the polyurethane layer (3) having a tight reinforcement layer (4) placed there on that does not allow layer (3) to pass through. The patent to **Gray et al.** discloses a multilayer hose including an inner layer (12) formed of a polymeric material that is self-supporting such that it has

substantial hardness and stiffness at its outer surface so that it does not flow or displace substantially into the vacant spaces formed along the undersurface of the reinforcement layer. The layer preferably has a hardness of from about 75 Shore A to about 63 Shore D. It is further disclosed that the polymeric material may be polyurethane. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the polyurethane of **Douchet** to have a durometer of at least 63 Shore D as suggested by **Gray et al.** in order to provide substantial hardness and stiffness to the high pressure fluid pipe in order to accept the reinforcement without substantial deformation of the tube.

#### **(10) Response to Argument**

Applicant argues that the polyurethane layer of **Douchet** is not a structural component of the hose, but rather a very thin, i.e., 0.05-0.1 mil, layer which is used to bond the reinforcement layer to the polyamide core, and that the polyamide core tube supports the reinforcement. It should be noted that the claim merely recites a second layer bonded directly to the first layer comprising a second thermoplastic polymeric, which is disclosed by **Douchet**. It is not clear what Applicant means in stating that the layer is not a structural component in terms of thickness wherein the polyurethane layer of **Douchet** is disclosed as being as thick as .1 mm, while the present invention discloses that the polyurethane layer may be as thin as .25 mm, which is not significantly thicker than that of the **Douchet** layer and therefore would not provide a

significant difference in pressure resistance or flexibility. Applicant argues that it would not be obvious to modify **Douchet** in view of the teachings of **Gray et al.** because there would seem to be no reason to harden or stiffen the bonding agent layer (3). It should be noted that though **Douchet** is silent in regards to the specific units of stiffness of the polyurethane layer, however it is disclosed, col. 3, lines 13 and 14, that the embodiment of fig. 2 includes a polyurethane layer that is sufficiently stiff such that it does not pass through the braided or knitted reinforcement layer (4). **Gray et al.** includes a polyurethane layer (12), which though is an inner core tube, also includes a braided reinforcement thereon. **Gray et al.** specifically states that this tube is dimensionally stable or self-supporting such that it has substantial hardness and stiffness at its outer surface so that it does not flow or displace substantially into the vacant spaces formed along the undersurface of reinforcement layer (16). Preferably, the tube has a durometer of from 75 Shore A to about 63 Shore D. Wherein both references are attempting to solve the same problem, it is reasonable to believe that it would have been obvious at the time the invention was made to modify the polyurethane layer of **Douchet** to have a stiffness similar to that of **Gray et al.**

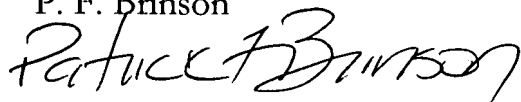
#### **(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

P. F. Brinson

A handwritten signature in black ink, appearing to read "Patrick Brinson", written in a cursive style.

Conferees:

K. Shaver

A handwritten signature in black ink, appearing to read "Kevin A. Shaver", written in a cursive style.

E. Keasel

A handwritten signature in black ink, appearing to read "Eric Keasel", written in a cursive style.